

Exhibit 27

(Excerpt)

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA
Alexandria Division**

United States of America, *et al.*,

Plaintiffs,

v.

Google LLC,

Defendant.

Case No. 1:23-cv-00108-LMB-JFA

Hon. Leonie H. M. Brinkema

EXPERT REPORT OF ROBIN S. LEE, PHD

December 22, 2023

VII.A. Google's ad tech strategy and importance of DFP

- (583) This Section provides background and context for the evaluation of Google's exclusionary conduct examined in this report.

VII.A.1. Google's ad tech strategy and the importance of the publisher ad server

- (584) Google began its campaign to acquire market power in open-web display advertising equipped with the advantage of having access to the many advertisers participating in purchases of its search advertising through Google Ads (then referred to as AdWords). By offering its Google Ads advertisers access to display advertising as well, Google could use this source of demand to attract open-web publishers and their display inventory.⁸¹⁶
- (585) To help realize this objective and build up its open-web display advertising presence, Google purchased DoubleClick and its publisher ad server DFP in 2008,⁸¹⁷ formally introducing DoubleClick Ad Exchange (AdX) in 2009,⁸¹⁸ and later acquiring the DSP Invite Media in 2010⁸¹⁹ and yield manager AdMeld in 2011.⁸²⁰ With these pieces in place, Google restricted access to Google Ads' advertiser demand outside of its own "sell-side" products (AdX, AdSense, and DFP), and established an exclusive relationship between AdX and DFP. Both of these actions persist in some form today, and are described further below in Sections VII.B and VII.C.
- (586) By restricting access to demand from its valuable Google Ads product, Google was able to first attract and then lock in publishers to using its sell-side products, thereby providing it with the valuable display inventory with which to then attract additional advertising spend. Moreover, for reasons described in Section V.B, DFP's market power, once established, was protected due to significant

⁸¹⁶ See GOOG-DOJ-AT-01592535, at -542 (2018) ("Welcome to the Sell-Side World!"... "Google Search ads started, and were so successful that we started putting them elsewhere i.e. on 3rd party websites, and called this "AdSense" (2003)"); GOOG-DOJ-AT-00221276, at -311 (2018 presentation on Google Display Network, noting in 2003, "Google AdSense Publisher network launched to tap into Google search demand"); GOOG-DOJ-11728951, -975 (11/15/2019) (Presentation on "GDA/ GDN Intro" stating, "[o]f new advertisers spending on GDN, about 1/3 of revenue in the first month comes from existing Search advertisers"). See also GOOG-AT-MDL-014507977, at -006 (01/2009).

⁸¹⁷ Eric Schmidt (then-Google Chairman and CEO), "We've officially acquired DoubleClick," *Google* (blog), Mar. 11, 2008, <https://googleblog.blogspot.com/2008/03/weve-officially-acquired-doubleclick.html>.

⁸¹⁸ Google News Announcement, "Google opens new DoubleClick Ad Exchange," News from Google, September 18, 2009, http://googlepress.blogspot.com/2009/09/google-opens-new-doubleclick-ad_18.html

⁸¹⁹ Neal Mohan (then Google Vice President of Product Management), "Investing in Exchange Bidding," *DoubleClick Advertising Blog*, Jun. 3, 2010, <https://doubleclick-advertisers.googleblog.com/2010/06/investing-in-exchange-bidding.html>.

⁸²⁰ Neal Mohan (then Google Vice President of Display Advertising), "Helping publishers get the most from display advertising with Admeld," *Google* (blog), Jun. 13, 2011, <https://googleblog.blogspot.com/2011/06/helping-publishers-get-most-from.html>.

switching costs publishers face in this market and publishers' tendency to use only a single publisher ad server for display advertising.

VII.A.1.a. The importance of the publisher ad server

- (587) As early as the DoubleClick Acquisition (for which I provide further background in Appendix L.1, Google documents and emails indicate that control of the publisher ad server was an important strategic advantage. By controlling what Google documents have referred to as the ad serving “decision engine” (and the associated “tag” or snippet of code on publishers’ webpages that called the publisher ad server),⁸²¹ Google could lock in customers and enhance its market power across the ad tech stack.
- (588) For example, in a 2009 email, then-Vice President of Product Management at Google, future SVP of video and display ads, and future YouTube CEO Neal Mohan expressed concern that if a rival gained control of the publisher ad tag, Google might lose access to display inventory: “If we lose [publisher] platform share, we can build the best GCN [ad network] in the world but will still be at a severe risk of being disintermediated if Y [Yahoo APT], M [MSFT Pub Center] own the ad tag on the publisher page.”⁸²² The email continued, “our biggest competitors have realized that the most important thing in display is having access to the right inventory (they can build the best networks but if they dont [sic] have the tag on the page, they could get disintermediated – just like we could).”⁸²³ The email concluded, “Fundamentally the glue that seals DFP to GCN is AdX (that is why it is the second pillar of our three-pillared strategy).”⁸²⁴
- (589) Google documents have described this strategy to “own the tag” with DFP, which would then benefit its other products (AdX and Google Ads), as follows:
- A 2017 Google “Monetization Cheatsheet” states, “Historically, Google has deployed an ‘own the tag’ strategy based on DFP to be the decision engine to allocate the impressions. AdX was then the only SSP that could potentially compete on dynamic price for all the impressions (called Dynamic Allocation).”⁸²⁵ (I discuss this conduct further in Section VII.D.1.)
 - In a 2017 email, a Google executive noted that, “Owning the ad serving tag is the right strategy and AdX (and DBM & Adwords) benefits from the direct line of inventory provided by DFP via dynamic allocation. ... Our buyers enjoy a competitive advantage from dynamic allocation,” and

⁸²¹ GOOG-DOJ-04429792, at -794 (04/2017), GOOG-DOJ-AT-02199478, at -487–88, -513 (06/2019).

⁸²² GOOG-DOJ-02148008, at -008 (03/23/2009). Google Content Network (GCN) is the former name of Google Display Network (GDN) which contains Google Ads.

⁸²³ GOOG-DOJ-02148008, at -009 (03/23/2009).

⁸²⁴ GOOG-DOJ-02148008, at -009 (03/23/2009). The email described the “three-pillared strategy” as “platform, AdX, network,” corresponding to DFP, AdX, and GDN (Google Ads).

⁸²⁵ GOOG-DOJ-04429792, at -794 (04/2017).

that “the value of Google’s ad tech stack is less in each individual product, but in **the connections across all of them.**”⁸²⁶

- (590) By “owning the tag”, Google would control the primary decision engine of the ad tech stack, allowing it to earn monopoly profits from the transactions that flowed through the stack.⁸²⁷ As I noted in Section V, Google did so in various ways: for example, by pricing its publisher ad server, exchange, and network services above competitive levels, and by taking advantage of its control over the decision logic of display ad serving in order to direct more transactions through its own products elsewhere in the stack (for example, through AdX).⁸²⁸ In addition, Google would be able to use the targeting information that it would gain by having access to nearly all open display ad serving on the web to enhance the market power of its other ad tech products.⁸²⁹
- (591) Other Google documents described this strategy of using its market power in the publisher ad server market to strengthen its position in other parts of the ad tech stack:
- Notes for a 2013 Google presentation, when describing “INTERCONNECTEDNESS” among its ad tech products, stated that “without DFP, would lose privileged access to inventory ... the function in DFP that enables GDN and Exchange buyers access to inventory that they cannot sell directly, or that we can sell at a higher pricepoint, is a huge business.”⁸³⁰
 - In a 2016 internal email exchange, a Google employee describing AdX’s historical advantages over rival ad exchanges within DFP stated that the “‘internal’ objective of our Sell-Side platform is to maximize our access to inventory. We managed historically to have an advantage through EDA [Enhanced Dynamic Allocation] vs other sources of demand...so our demand could win even if we did not provide the best CPM on a specific impression.”⁸³¹ As I discuss further in Section VII.D.1, AdX was provided with a “first-look” advantage within DFP that allowed it to win an impression even if some other demand source was willing to pay more.

⁸²⁶ GOOG-DOJ-04830048, at -048 (09/05/2017) (emphasis in original).

⁸²⁷ See, e.g., FBDOJGOOG_00028978, at -983 (2018 Facebook presentation, “Owning the decision of who wins the publisher impressions i.e., the Ad server, is the most important part of the ad tech stack.”); Deposition of John Gentry (OpenX), October 26, 2023, 43:8–43:25 (“Q. How big of a threat, if at all, is Amazon to Google’s dominance of the display exchange business?...[A.] I don’t believe they are. Q. Why do you say that Amazon is not a threat to Google’s dominance of the display exchange business?...[A.] Because Amazon does not own the ad server and the ad server is the -- as I mentioned earlier, that is where you have all the data around how those display ads are going to transact.”).

⁸²⁸ GOOG-TEX-00138857, at -860 (02/21/2017). (2017 DRX All Hands – Competitive Session notes, “[l]et’s go back to our DFP own the tag strategy. That strategy has served us well for a long time because it means we control the decision logic”).

⁸²⁹ GOOG-DOJ-13503400, at 404–05 (02/07/2019) (“Being First Tag on Page confers numerous benefits: Since we coordinate all demand callouts, we learn how every buyer bids and clearing prices. Since we see all the demand, we can form a good understanding of the value it brings relative to the latency cost its callout incurs... We can’t be intermediated by any 3rd party unless the publisher takes our tag off the page.”).

⁸³⁰ GOOG-DOJ-04445011, at -014 (05/2013).

⁸³¹ GOOG-TEX-00104315, at -315 (09/15/2016).

- A 2018 Google sell-side strategy document noted that by controlling “the ad serving decision engine” (i.e., publisher ad server), Google would “Gain Access” and “See More”, which it could then use to “Win More” through its AdX exchange product.⁸³²

(592) A 2018 Google memo discussing the “guiding principles and approaches for our publisher strategy” described Google’s strategy as follows: “we can say that our goal is to be a platform that is as closed as possible, but given that it is not fully possible, we should open up as much as needed for us to not lose access to inventory on the terms we want.”⁸³³ The document described additional benefits from a closed system—i.e., one that ensures “our demand is competing on favorable terms with third party demand”⁸³⁴—as including “Best possible case for our demand (no competition),” “Better control on margins,” and “More data access.”⁸³⁵

VII.A.2. Threats to Google’s substantial market power in ad tech and DFP

- (593) In the years following the DoubleClick acquisition, Google documents show that Google identified and responded to threats to its “own the tag” strategy and its “Must Call” status.⁸³⁶
- (594) One of the threats that Google documents identified around 2010 was from “yield managers,” which were products that allowed publishers to access and select among bids from multiple demand sources. Some, but not all, yield managers allowed publishers access to real time bids which further threatened Google’s ability to “own the tag.”⁸³⁷ A 2010 Google slide deck noted, “Yield managers are disintermediating our access to inventory, inhibiting our overall display strategy,”⁸³⁸ and notes for an August 2010 meeting among Google ad tech executives stated that, “Yield Managers are a threat we need to take very seriously.”⁸³⁹ In Section VII.E, I describe this threat further, and discuss how Google responded by acquiring the yield manager AdMeld in 2011.

⁸³² GOOG-DOJ-04442323, at -327 (09/11/2018) (““Gain Access” (Be the ad serving decision engine)[.] “See More” (Optimize so AdX buyers compete fairly)[.] and “Win More” (Optimize to improve chances AdX buyers win)”).

⁸³³ GOOG-DOJ-04004392, at -399 (09/10/2018).

⁸³⁴ GOOG-DOJ-04004392, at -392–393 (09/10/2018) (The document defines “Open features” as “platform features where all demand is competing on equal terms[.]” and “Closed features” as “platform features where our demand is competing on favorable terms with third party demand.”).

⁸³⁵ GOOG-DOJ-04004392, at -399–400 (09/10/2018).

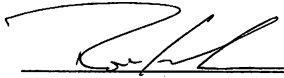
⁸³⁶ GOOG-TEX-00120775, at -810 (10/27/2016).

⁸³⁷ GOOG-TEX-00101777, at -780 (01/21/2011) (A Google slide deck titled “Non-Premium Display Competitive Deep Dive” states, “Yield Managers through a scrappy service and tech offering have side-stepped our platform strategy and are ‘owning the remnant tag’ for a growing number of premium publishers, putting at risk our current and future control over the inventory supply.”), -802–804 (Google summarizes its “Competitive Intel” for each of Rubicon, AdMeld, and PubMatic. For Rubicon, it states, “Still no support for RTB (in limited beta testing now).” For AdMeld, it lists “Real Time Bidding” under “Key Strengths.” For PubMatic, it lists “RTB Integration optional” under “Key Strengths.”).

⁸³⁸ GOOG-DOJ-13252093, at -094 (04/15/2011).

⁸³⁹ GOOG-DOJ-02139596, at -597 (08/26/2010) (emphasis in original).

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December 22, 2023
Date

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Appendix L. Background for Google's Conduct

- (11) This appendix contains useful background context to understand Google's market power and conduct analyzed in other parts of this report.
- In Appendix L.1, I discuss Google's acquisition of DoubleClick. This acquisition gave Google control of two products—DoubleClick's publisher ad server DFP and the exchange that became AdX—which facilitated its exclusionary conduct in the relevant markets.
 - In Appendix L.2, I explain how header bidding facilitated publisher multihoming across real-time bidding sources and was described by Google employees as a threat to Google's control of the ad tech stack.
 - In Appendix L.3, I summarize some of Google's responses to header bidding, including 1) launching Exchange Bidding (thereby opening up Dynamic Allocation within DFP to exchanges other than AdX); 2) adjusting its bidding strategies for DV360, including by introducing Demand Product and Project Poirot.
 - In Appendix L.4, I discuss Google's Dynamic Revenue Sharing (DRS) Programs for Google Ads, including Project Bernanke and Project Bell.

L.1. Google's acquisition of DoubleClick

- (12) As I noted in Section VII.A, Google documents indicated that controlling the publisher ad server (and the "tag" on publishers' pages) could lock-in customers and enhance its market power across the ad tech stack, and that there was concern that if a rival gained control of the publisher ad tag, Google instead might be locked out from accessing display inventory.
- (13) Here, I provide background on Google's acquisition of DoubleClick, completed in 2008. This acquisition brought DoubleClick's publisher ad server DFP and the exchange that became AdX under Google's control.
- (14) According to a Google document, Google's display advertising business captured less than 1% of the \$5 billion spent on online display advertising in 2005.¹³⁵⁶ The document noted that "[most] AdSense sites are too small for Comscore or Nielsen to report their audience profile—removing them from the display advertiser's consideration set" and that "Google's AdSense product does not meet the revenue threshold or predictability needs of publishers for anything other than remnant inventory."¹³⁵⁷ Further,

¹³⁵⁶ GOOG-DOJ-06267628, at -630 (10/20/2006).

¹³⁵⁷ GOOG-DOJ-06267628, at -630 (10/20/2006).

Google documents suggest the company was concerned by a lack of sufficient third-party advertising space to meet the demand generated by its advertisers.¹³⁵⁸ For example, a 2006 Google document acknowledged that a key challenge to Google's display ads business is that ad buyers "want scale" but Google has a "lack [of] critical mass of premium inventory."¹³⁵⁹

- (15) Internal Google documents acknowledged benefits from operating across all layers of the ad tech stack. A 2005 email chain between Google employees acknowledged that Google "hope[d] and plan[ned] to be the be-all, end-all location for all ad serving," and that "the short-term win of accepting 3rd party ad serving cripples [Google's] long-term strategy."¹³⁶⁰ In a separate email chain, Tim Armstrong, the President of Google Americas at the time, wrote that "once you own the pipes, all 3rd party served rev, and all unused impressions – and you control billing and accountability – you systematically replace the parts of the system with a cross media platform where there is one advertiser input desktop and one place to get measurement outputs."¹³⁶¹ Armstrong also noted that when you own these things, "there is really high lock-in."¹³⁶² Further, a Google presentation states that to "build the largest pool of liquid inventory" they needed to "become the primary ad server to get a 'first look'."¹³⁶³
- (16) In 2006 Google began developing their own publisher ad server, which they referred to as Google Ad Manager for Publishers (GFP).¹³⁶⁴ However, according to a 2007 white paper submitted to the FTC by Google's lawyers the launch of GFP faced a "number of significant shortcomings," GFP "received serious negative feedback from actual and prospective beta test partners" and its development timeline "slipped considerably."¹³⁶⁵
- (17) In April 2007, Google announced its acquisition of DoubleClick, the market-leading publisher ad-server at the time, for \$3.1 billion.¹³⁶⁶ This was consistent with a 2006 Google document that stated, "We need to aggressively use acquisitions to solve" problems in their display ads business, including

¹³⁵⁸ A 2004 Google presentation on AdSense acknowledged that one risk to AdSense for Content is "Advertiser Opt-Out" due to a "[l]ack of premium brand names [which] decreases perceived value to advertisers" GOOG-DOJ-00134248, at -255 (10/25/2004). Further, a 2007 Google document regarding DoubleClick noted that "the winner will be the company with the largest pool of liquid [inventory]" GOOG-DOJ-01657697, at -888 (03/15/2007).

¹³⁵⁹ GOOG-DOJ-13009671, at -674 (07/26/2007).

¹³⁶⁰ GOOG-DOJ-01856500, at -503 (06/27/2005).

¹³⁶¹ GOOG-DOJ-01657697, at -829 (03/15/2007).

¹³⁶² GOOG-DOJ-01657697, at -829 (03/15/2007).

¹³⁶³ GOOG-DOJ-01657697, at -888 (03/15/2007). (Google's usage of first look to secure additional supply for its advertisers is further discussed in Section K.2)

¹³⁶⁴ GOOG-DOJ-01654477, at -482 (08/31/2007).

¹³⁶⁵ GOOG-DOJ-01654477, at -480 (08/31/2007).

¹³⁶⁶ Google estimated that DoubleClick had a "60% share of publisher ad serving market" at the time of the acquisition. *See* GOOG-DOJ-01657697, at -845 (03/15/2007); GOOG-DOJ-00970889, at -891 (05/19/2007); Louise Story and Miguel Helft, "Google Buys DoubleClick for \$3.1 Billion," *New York Times*, April 14, 2007, <https://www.nytimes.com/2007/04/14/technology/14DoubleClick.html>.

a lack of “critical mass of premium inventory” and “AdSense sites are not part of planning process for agencies.”¹³⁶⁷

- (18) An April 2007 Google document entitled “Project Liberty BoD Review” noted two strategic rationales for the acquisition: DoubleClick’s “Agency Ad Server (Buyside)”, and its “Publisher Ad Server (Sellside),” known as DART for Publishers (DFP).¹³⁶⁸ The document stated that the publisher ad server would provide “[a]ccess to potential 2B+ incremental AFC impressions per day,” estimating “AFC Network Growth” as contributing \$2 billion worth of value through “access to DFP publishers’ inventory.”¹³⁶⁹ A 2006 Google document noted the value of premium inventory to “create ‘pull-through’ demand for AdSense on tail properties.”¹³⁷⁰
- (19) The acquisition also provided Google with an advertiser ad server product known as DART for Advertisers (DFA).¹³⁷¹ By 2006, Google had begun working on a new product for advertisers which it referred to as both CMO Dashboard and GFA.¹³⁷² While Google’s existing AdWords product served “Smaller Advertisers,” Google’s Dashboard product intended to serve “F[ortune] 500 and Larger Advertisers” (see Figure 150 below).¹³⁷³ A 2007 Google slide deck on the potential acquisition of DoubleClick noted that the “vision” of DoubleClick’s DFA product was “the same as CMO Dashboard.”¹³⁷⁴ A separate Google acquisition slide deck expressed interest in Google acquiring DoubleClick or Atlas and “convert[ing] it into v1.0 of CMO Dashboard.”¹³⁷⁵ When DFA was ultimately acquired by Google as part of the DoubleClick acquisition, it had contracts with “9 of 10 Top 10 global agencies” and a “~50% share of 3PA serving.”¹³⁷⁶

¹³⁶⁷ GOOG-DOJ-13009671, at -674 (07/26/2006).

¹³⁶⁸ GOOG-DOJ-01657697, at -744 (03/15/2007).

¹³⁶⁹ GOOG-DOJ-01657697, at -744, -745 (03/15/2007).

¹³⁷⁰ GOOG-DOJ-13009671, at -675 (07/26/2006).

¹³⁷¹ Google describes DFA as the “centralized planning, third-party ad serving, reporting and creative optimization solution for all major agency holding companies and the internet’s leading advertisers.” *See* GOOG-DOJ-01657697, at -721 (2007 Google “Strategic Opportunities” report on DoubleClick).

¹³⁷² GOOG-DOJ-02107055, at -056 (06/14/2006); GOOG-DOJ-01657697, at -775.

¹³⁷³ GOOG-DOJ-01657697, at -760 (03/15/2007).

¹³⁷⁴ GOOG-DOJ-00970889, at -891 (05/19/2007).

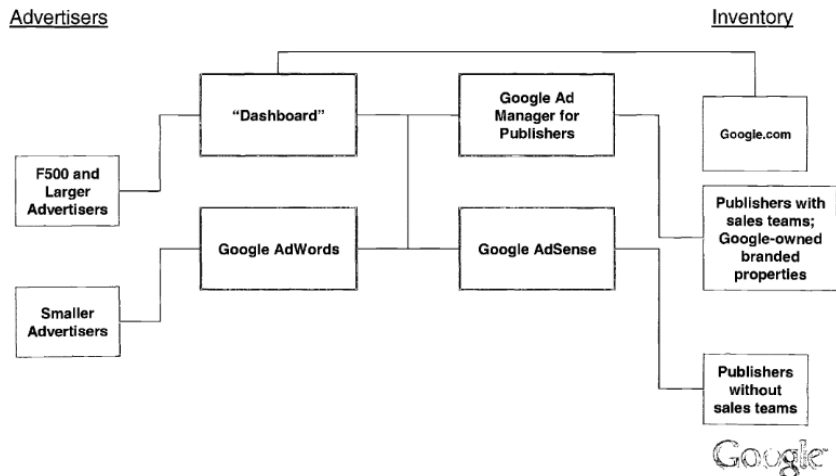
¹³⁷⁵ GOOG-DOJ-13009671, at -674 (07/26/2006). In the “Project Liberty BoD Review” document, Google listed “jumpstar[ing] our organic efforts (GFP)” as a “Strategic Rationale” for acquiring DFA. *See* GOOG-DOJ-01657697, at -744 (03/15/2007).

¹³⁷⁶ GOOG-DOJ-00970889, at (05/19/2007) -891, -894.

Figure 150. Google's Marketing Dashboard Vision

Marketing Dashboard Vision

Dashboard is to AdWords what Google Ad Manager is to AdSense



Source: GOOG-DOJ-01657697, at -760 (03/15/2007).

- (20) Prior to the announcement of the acquisition, Google executives also expressed concern over what would happen if a competitor acquired DoubleClick. Meeting notes from a 2006 meeting that included Larry Page, Sergey Brin, Eric Schmidt, and Susan Wojcicki discussed the possibility that Microsoft might lock Google out of DoubleClick's display inventory.¹³⁷⁷ Another concern outlined in a 2007 presentation was that if DoubleClick were acquired by Microsoft, Google would be impaired in their ability to build their display ad business.¹³⁷⁸ An email sent to Google's Board of Directors indicated that "Google's Rationale for Acquiring DoubleClick" was that a Microsoft acquisition of DoubleClick would threaten Google's ad-network and demand-side businesses.¹³⁷⁹ Additionally, in an email discussing the valuation of the DoubleClick deal, a Google employee (Salman Ullah) described

¹³⁷⁷ GOOG-DOJ-02156854, at -855 (12/13/2006) (In a 2006 Google email containing meeting notes, a Google employee (Alex Kinnier) stated that "Msft could buy dbclick and lock google out of display inventory. With this tie, could better monetize inventory. Could also lock Google out of agencies.").

¹³⁷⁸ GOOG-DOJ-00970889, at -890 (05/19/2007) ("GFA has little chance to succeed if MS buys Liberty [DoubleClick], impairing our chance to build a display ad business (unless we accept 3p ad tags).") and -893 ("Acquisition by MSFT will make it challenging for GFA and GFP to get traction. DFA/DFP will likely be made free and improved (similar to our strategy). Reduces incentives for current customers to switch to GFP/GAM... **RISK: GFP/GAM market traction significantly impaired.**" (emphasis in original)).

¹³⁷⁹ GOOG-DOJ-01657697, at -839 (03/15/2007) (Email from David Drummond (Google's Senior Vice President of Corporate Development and Chief Legal Officer) to Google's Board of Directors, March 23, 2007, "Acquisition of DoubleClick by Microsoft would make it very challenging for us to win customers for our own advertiser ad server... A Microsoft-owned DoubleClick represents a major competitive threat to our AdSense for Content business"). See also GOOG-DOJ-00970889, at -890 (05/19/2007) (May 2007 Google "EMG Deal Review" document for Project Liberty, "Liberty's publisher ad server would enable MSFT to quickly scale its ad network, intensifying competition for AFC [AdSense for Content]").

part of the deal value as including the “defensive value” of preventing Microsoft or Yahoo! from stealing Google’s existing inventory and publishers.¹³⁸⁰

- (21) As a March 2007 email to several Google employees (including Susan Wojcicki and Tim Armstrong) noted,

The bottom line is that [DoubleClick's] product sucks and their value is based on their legacy and the bad spot we would be in if M or Y tied their inventory into the advertiser platform. ... We may end up paying a lot for [DoubleClick] because the Y/M inventory combo + advertiser tag switching costs will make it very very hard for us to gain market traction (and \$ flow into our inventory fast).¹³⁸¹

- (22) Google’s acquisition of DoubleClick triggered an investigation by the Federal Trade Commission. The FTC investigated whether the acquisition “could harm competition by allowing Google to exploit DoubleClick’s position in the third-party ad serving markets to the benefit of Google’s ad intermediation product, AdSense.”¹³⁸² The FTC also recognized the possibility that Google might bundle its existing products with those acquired from DoubleClick.¹³⁸³ Despite these concerns, the FTC concluded that the acquisition was unlikely to substantially lessen competition in what they referred to as third party ad serving and ad intermediation markets.¹³⁸⁴ The FTC elected not to block the acquisition, but noted that “should Google engage in unlawful tying or other anticompetitive conduct, the Commission intends to act quickly.”¹³⁸⁵
- (23) Ultimately, the DoubleClick acquisition—which closed in March 2008—provided Google with a foothold in the publisher ad server market which it used to strengthen its position across the entire ad tech stack. The acquisition provided additional supply for advertisers on Google’s platforms,

¹³⁸⁰ GOOG-DOJ-01657697, at -896 (03/15/2007) (“Our estimate of the offensive value of acquiring Liberty remains \$2.1-2.7B. In order to justify a \$3.1B price, we’d have to believe that 10-25% of our AFC business (\$400M-\$1B NPV) would go away if MSFT or YHOO acquired Liberty. We believe that a 10-25% downside impact to AFC is not an unreasonable scenario... An estimate of the defensive value depends on what % of our AFC business would be at risk if MSFT or Y! acquired Liberty. The assumption is that MSFT/Y!’s ad network RPMs could be increased if they owned Liberty. Higher RPMs would enable MSFT/Y! to steal some of our existing inventory/publishers and impede us from winning new inventory.”).

¹³⁸¹ GOOG-DOJ-01657697, at -833 (03/15/2007) (2007 Google email exchange between Alex Kinnier and Jeff Huber).

¹³⁸² Federal Trade Commission, “Federal Trade Commission Closes Google/DoubleClick Investigation,” Press Releases, December 20, 2007, <https://www.ftc.gov/news-events/news/press-releases/2007/12/federal-trade-commission-closes-googledoubleclick-investigation>.

¹³⁸³ Federal Trade Commission, “Statement of the Federal Trade Commission concerning Google/DoubleClick,” FTC File No. 071-0170, at 10, December 20, 2007, <https://www.ftc.gov/news-events/news/press-releases/2007/12/federal-trade-commission-closes-googledoubleclick-investigation>.

¹³⁸⁴ Federal Trade Commission, “Federal Trade Commission Closes Google/DoubleClick Investigation,” Press Releases, December 20, 2007, <https://www.ftc.gov/news-events/news/press-releases/2007/12/federal-trade-commission-closes-googledoubleclick-investigation>.

¹³⁸⁵ Federal Trade Commission, “Federal Trade Commission Closes Google/DoubleClick Investigation,” Press Releases, December 20, 2007, <https://www.ftc.gov/news-events/news/press-releases/2007/12/federal-trade-commission-closes-googledoubleclick-investigation>.

bolstering the attractiveness of Google Ads. Similarly, DFP experienced significant growth following the acquisition. (See Sections V.D and V.B for discussion on the market power of Google Ads and DFP.)

- (24) The DoubleClick acquisition also provided the foundation for Google’s ad exchange that became AdX. In 2007, prior to its acquisition by Google, DoubleClick began developing the DoubleClick Ad Exchange.¹³⁸⁶ DoubleClick viewed the exchange as “the centerpiece of a growth plan” through which it may derive the majority of its revenue within five years.¹³⁸⁷ Following the acquisition, Google started building upon the exchange and launched AdX just two years later.¹³⁸⁸ The exchange grew rapidly. AdX’s revenue increased by nearly 300% in 2009 and by over 800% in 2010.¹³⁸⁹ By 2011, just three years after the acquisition, Google’s “Display Advertising OC Business Review” presentation labeled Google as the “#1 player in US display.”¹³⁹⁰

L.2. The emergence of header bidding

- (25) In Section VII.A, I explained the important role that DFP’s market power played in supporting and sustaining its market power elsewhere in the ad tech stack. In this Section, I describe how Google employees viewed header bidding as a competitive threat to Google’s control of the Ad Tech stack. Additionally, the following discussion also illustrates how, by harming the competitiveness of rivals in the ad exchange market, Google could protect DFP’s market power in the publisher ad server market.
- (26) This section is organized as follows.
- In Appendix L.2.a, I show that publishers viewed header bidding as a way around Google’s restrictive policies regarding the use of its ad tech products, and benefited from header bidding allowing them to pit multiple demand sources in real-time competition against one another.
 - In Appendix L.2.b, I discuss how Google employees perceived header bidding as an “existential threat” to its control of the Ad Tech stack. I discuss how header bidding (in a manner similar to yield managers), by assisting publishers with accessing multiple real-time demand sources and

¹³⁸⁶ Greg Sterling, “Google Formally Announces New DoubleClick Ad Exchange,” *Search Engine Land*, Sept. 18, 2009, <https://searchengineland.com/googles-doubleclick-formally-announces-new-ad-exchange-26042>.

¹³⁸⁷ Louise Story, “DoubleClick to Set Up an Exchange for Buying and Selling Digital Ads,” *The New York Times*, April 4, 2007, *The New York Times*, <https://www.nytimes.com/2007/04/04/business/media/04adco.html>

¹³⁸⁸ Greg Sterling, “Google Formally Announces New DoubleClick Ad Exchange,” *Search Engine Land*, Sept. 18, 2009, <https://searchengineland.com/googles-doubleclick-formally-announces-new-ad-exchange-26042>. The original AdX product was built out of the DART platform. See GOOG-DOJ-04292352 at -352 (01/06/2011).

¹³⁸⁹ GOOG-DOJ-13097233, at -238 (06/01/2011) (Google presentation, “Display Advertising OC Business Review,” June 2011).

¹³⁹⁰ GOOG-DOJ-13097233, at -235 (06/01/2011) (Google presentation, “Display Advertising OC Business Review,” June 2011).